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**TESTIMONY OF DR. MARK COOPER,  
DIRECTOR OF RESEARCH OF THE CONSUMER FEDERATION OF AMERICA**

**On Behalf of**

**THE CONSUMER FEDERATION OF AMERICA AND CONSUMERS UNION**

**On**

**DIGITAL MUSIC INTEROPERABILITY AND AVAILABILITY**

**Before the**

**SUBCOMMITTEE ON COURTS, THE INTERNET AND INTELLECTUAL  
PROPERTY,  
COMMITTEE ON THE JUDICIARY  
U.S. HOUSE OF REPRESENTATIVES**

**April 6, 2005**

Mr. Chairman and Members of the Committee,

My name is Dr. Mark Cooper. I am Director of Research at the Consumer Federation of America. I appreciate the opportunity to testify on the subject of interoperability and commend the Committee for having the foresight to hold hearings to explore the implications of this important topic.

Interoperability is a critically important issue, not only for consumers, but also for producers and the economy. However, it is important for the Committee to appreciate that the role of interoperability and public policies to promote it vary greatly depending on the nature of the economic activity that is being analyzed.

### **Interoperability Should be Required as a Matter of Public Policy in Core Networks**

Ensuring interoperability is a critical and pressing public policy concern when it affects the critical functions of a vital network in our economy. For example, we demand interoperability in the communications network, as a public obligation, because it is a vital infrastructure at the core of our economy.<sup>1</sup> Telephone networks have interoperated for almost 100 years. The advent of the Internet has brought with it amazing new opportunities for communication—WiFi-enabled telephones can connect with computers. E-mail users can connect to Blackberries. Macintosh users can send and receive files to and from Windows users. Interoperability supports a vast array of other activities and the failure to interoperate would chill innovation and distort economic activity.

Over the past quarter of a century, as the digital economy has grown and influenced the broader economy, the importance of interoperability has grown because “platforms” play an

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<sup>1</sup> Mark Cooper, *Open Architecture as Communications Policy* (Stanford Law School Center for Internet and Society, 2004), available for download under a Creative Commons License at <http://Cyberlaw.Stanford.edu/blogs.cooper/openarchitecture.pdf>.

increasingly important role. “A platform is a common arrangement of components and activities, usually unified by a set of technical standards and procedural norms round which users organize their activities. Platforms have a known interface with respect to particular technologies and are usually ‘open’ in some sense.”<sup>2</sup>

Interoperability to maximize the availability of functionality has been the hallmark of digital platforms for a simple reason. By keeping interfaces open and making the functionality available, the entire platform is driven forward, expanding the opportunities for all who build to and take from (use) the platform. “Interfaces exist to entice other firms to use them to build product that conform to the defined standards and therefore work efficiently with the platform.”<sup>3</sup>

The superior value of interoperability of critical networks through open interfaces was recognized by the National Research Council of the National Academy of Sciences in a 1994 analysis of the Internet, just before it exploded into wide popular use in America. “The telephone system is an example of an open network, and it is clear to most people that this kind of system is vastly more useful than a system in which the users are portioned into closed groups based, for example, on service provider or the user’s employer.”<sup>4</sup>

In contrast, interoperability in the digital content and consumer goods industries, like video games or music formats, is a consumer-friendly way to do business. The failure of interoperability in the music industry affects the music industry and the consumers who purchase digital music. The failure of interoperability in the communications industry affects the entire economy.

### **Interoperability Should be Promoted in Consumer Applications**

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<sup>2</sup> Shane Greenstein, “The Evolving Structure of the Internet Market” in *Understanding the Digital Economy* (Erik Brynjolfson and Brian Kahin (Eds) (2000), p. 155.

<sup>3</sup> Anabelle Gawer and Michael A. Cusumano, *Platform Leadership* (2002), p. 56.

<sup>4</sup> National Research Council, *Realizing the Information Age* (1994), p. 43.

We believe that interoperability best serves the interest of consumers and producers throughout the digital platform, but as the question moves from the interoperability of the network, to how that network is used for music it becomes important for the marketplace to provide better clarity. If an application developer refuses to interoperate, we believe that developer will ultimately pay the price, because consumers will migrate to interoperable offerings. Applications developers should be allowed to discover the consequences of their bad decisions in the marketplace.

We believe consumers demand interoperability, and will pick it when given the choice. However, the development of converged or open platforms takes time, and it requires that consumers understand their options. Disclosure and consumer expectations should be taken into consideration. Sellers of closed platforms need to better inform consumers that their platforms are closed, and that consumers might be locking themselves into future hardware and software purchases in that platform.

Consumers have certain expectations that they could pop a record onto a turntable or a compact disc into a CD player and music would come out. If digital formats are not going to replicate that interoperability, retailers of digital music and digital music players have a special obligation to inform consumers who have built up expectations of interoperability over years, even decades of experience. Given good information—such as where and how things will work, and where it won't--we are confident consumers will choose the interoperable systems over closed platforms,

### **When the Failure to Interoperate Raises Concerns**

An industry's refusal to interoperate should also not become a lever for anticompetitive strategies. This is a special concern in platform industries where a company may come to

dominate one critically important component (layer) of a platform and seeks to use that dominance to frustrate competition in other components.<sup>5</sup> This is a problem of vertical leverage in antitrust analysis and it grows in significance in platform industries precisely because of the heightened importance of interfaces between components (layers) in these platforms. Closing interfaces takes on special importance. Unfortunately, antitrust practice has drifted away from concerns about vertical leverage, at precisely the moment it demands greater scrutiny and attention.

We believe that music, movies and other digital content could quickly grow to become that anti-competitive lever, if it is not already. For the consumer who purchased any digital music player other than an iPod, there's no simple recourse when R.E.M. releases a series of songs exclusively on iTunes Music Store.<sup>6</sup> Nor is there any recourse at all for a Mariah Carey fan with an iPod on a Macintosh when she releases an exclusive song on MSN Music—a platform that simply won't work with Macintosh or iPods.<sup>7</sup>

Consumers who run up against these problems with music, movies or other digital content will increasingly turn to methods that potentially infringe copyright to get the song they want, including searching the Internet for a copy of the song converted to an open format. This is a less-than-adequate solution, and one that all parties should be wary of inadvertently promoting. Both the content and device industries surely recognize that every time they drive a

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<sup>5</sup> Mark Cooper, "Antitrust as Consumer Protection in the New Economy: Lessons from the Microsoft Case," *Hastings Law Journal*, 52:4, 2001. Available at [http://www.consumerfed.org/cooper\\_hastings\\_law\\_review\\_200106.pdf](http://www.consumerfed.org/cooper_hastings_law_review_200106.pdf)

<sup>6</sup> While iTunes allows consumers to burn purchased protected digital music to a CD—an open platform—it must be pointed out that a consumer would need to install a new program, purchase the song, burn the song to CD, rip the burned CD into a format their current player will understand and then enter all the song information manually—a cumbersome process digital music stores were supposed to make automatic.

<sup>7</sup> A consumer with an iPod and Windows might have more luck if they followed the steps in Footnote 6, but users with a Mac are out of luck—and won't be able to download that song legally.

consumer to infringe copyright because of their support for a closed platform, they create new incentive to create and deliver an open platform.

### **Digital Distribution of Music Has Just Begun: Interoperability Will Likely Prevail**

Last year, when the recording industry finally accepted the inevitability of digital distribution of music, the industry sold more singles than at any time in the past two decades. The transition to digital distribution has begun in earnest. This transition is inevitable. Digital distribution reduces the costs of production, marketing, and distribution. It may also radically alter the approach to promotion. The cost of delivering music to the public will decline by 50 percent or more and the selling of music will shift from bundles of songs to singles.

Major record labels—whose artists account for over 80% of the music purchased in America—are belatedly considering alternative business models for digital distribution. This lead to subscription services like Real Rhapsody and Napster 2.0 or a la carte services like those two companies offer, iTunes Music Store, and others.

The music industry is not facing a format war, like the battle they are currently fighting over high-definition music--where some labels exclusively sell content on SuperAudio CD while others only release premium music on the DVD-Audio format. A format war clearly would have impeded the adoption of digital music. But as the amount music exclusively available on one format increases, and as consumers discover they've purchased thousands of dollars of music to fill up their digital music devices, locking themselves to one type of player forever, they are more likely to get confused and frustrated. To alleviate both, record labels and device manufacturers should proactively inform consumers about the limitations of their closed systems, and work to develop open standards.

Those who had foresight and created a digital music platform with portable digital music players and digital music download stores now have a lead, winning a first-mover advantage. But as the entirety of the music industry makes the inevitable transition to digital distribution, there are no guarantees that the initial advantage will persist, especially if mistakes are made with regard to interoperability. A quarter of a century ago a closed platform dominated the computer desktop market. A more open platform quickly replaced it, forcing all platforms to improve compatibility. Given a choice that is not distorted by anticompetitive practices and good information consumers will prefer and migrate to the interoperable platforms.

### **Conclusion**

Last week oral argument in two critical cases (*National Cable and Telecommunications Association et al. v. Brand X Internet Services et. al* and *Metro-Goldwyn Mayer Studios Inc. et al v. Grokster*) that will determine the future of the Internet made it clear that technology policy requires a careful balance between the public and private interests. Interoperability in core infrastructure industries has been a key ingredient in this nation's economic success since the railroad track was standardized and the telecommunications network was obligated to provide interconnection and carriage on just, reasonable and nondiscriminatory rates, terms and conditions.

I thank the Committee for recognizing that in the digital economy interoperability has even broader implications and I look forward to working with the committee to find the right mix of public obligations and private incentives to achieve open, competitive platforms that provide a dynamic, consumer-friendly economy.